In the Claims

1 (currently amended). A method for the production of retinal cells, comprising:

(i) obtaining one or more ~~mammalian~~human ~~adult~~ Müller cells expressing markers of mature Müller cells; and

(ii) culturing the cells in the presence of an extracellular matrix protein and a growth factor to thereby induce dedifferentiation of the Müller cells into a progenitor phenotype.

2 (currently amended). The method according to claim 1, wherein the extracellular matrix protein is fibronectin and the growth factor is ~~EGF~~epidermal growth factor.

3 (cancelled).

4 (previously presented). The method according to claim 1, further comprising culturing the dedifferentiated cells in the presence of an extracellular matrix protein and a differentiation agent, to thereby induce the dedifferentiated cells to adopt a specific differentiated cell phenotype.

5 (currently amended). The method according to claim 4, wherein the extracellular matrix is selected from the group consisting of matrigel, fibronectin, collagen, and laminin, and the differentiation agent is selected from the group consisting of ~~FGF-2~~fibroblast growth factor-2, retinoic acid, 3,3',5-Triiodo-L-Thyronine, insulin, insulin-like growth factor, ~~and TGFβ~~ and transforming growth factor β.

6 (currently amended). A composition comprising de-differentiated Müller cells obtainable by a method comprising:

(i) obtaining one or more ~~mammalian~~human adult Müller cells; and

(ii) culturing the cells in the presence of an extracellular matrix protein and a growth factor to thereby induce dedifferentiation of the Müller cells into a progenitor phenotype.

7 (cancelled).

8 (withdrawn-currently amended). A method for treatment of a condition associated with cell loss or cell damage, comprising administering an effective amount of the composition of claim 6 to a human suffering from the condition ~~retinal cells to a mammal suffering from the condition, wherein the retinal cells are:~~

~~(i) mammalian adult Müller cells that have been induced to de-differentiate into a progenitor phenotype prior to said administering; or~~

~~(ii) the de-differentiated cells of (i), wherein the cells have been induced to differentiate to adopt a specific differentiated cell phenotype prior to said administering~~.

9 – 10 (cancelled).

11 (withdrawn-currently amended). The method according to claim 8, wherein the condition is associated with cell loss or damage in the ~~mammal's~~ eye of the human.

12 (withdrawn). The method according to claim 8, wherein the condition to be treated is selected from the group consisting of: age-related macular degeneration, proliferative diabetic retinopathy, proliferative vitreoretinopathy, retinal detachment, retinitis pigmentosa, glaucoma and optic nerve injury, and retinal degeneration.

13 (withdrawn-currently amended). The method according to claim 8, wherein the retinal cells are autologous cells, derived from the ~~mammal~~human to be treated, heterologous cells stored in a cell bank, or genetically modified cells derived from the ~~mammal~~human or cell bank.

14 – 15 (cancelled).

16 (new). The method according to claim 1, wherein the Müller cells are adult Müller cells.